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AIR CONDITIONING
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Case Study:

MHI Premium 5kW wall-mounted range

MF Air Conditioning and Refrigeration,
garden room installation

CASE STUDY: MHI PREMIUM 5KW WALL-MOUNTED RANGE GARDEN ROOM INSTALLATION

With more people than ever now working from home, the demand for garden rooms continues to grow at an astonishing rate. According to The Guardian, the number of installations in the UK increased by 500% in between January and May in 2021, compared with the previous year.

Garden rooms can have many uses, including gyms and hobby rooms, but it is the need for home offices in the wake of the Covid pandemic which has largely driven this unprecedented demand. Garden rooms can solve the big issue of space and also help to create a clear division between the home and other areas of life, with planning requirements not too onerous in many cases. Modern designs allow for large windows to provide views over the garden and although this is often a requirement, it can lead to an increase in the building's heat losses in the winter months and heat gains in the summer. Demand for air conditioning in garden rooms has grown for this very reason.

MF Air Conditioning and Refrigeration, based in Leicester, was asked to provide air conditioning for a new office garden room in the Midlands, with the client wanting to ensure a year-round comfortable environment for their working space. Electric panel heaters were considered, however these cannot provide cooling in the summer and are generally much less efficient than air conditioning.



With over 20 years of installation experience, MF Air Conditioning and Refrigeration knows that space is crucial for garden rooms, which is why MHI's Premium wall-mounted range was chosen. The MHI 5kW Premium unit boasts a seasonal cooling (SCOP) rating of 4.6 and seasonal heating (SEER) of 7, as well as a A++ ERP rating. Using heating and cooling degree days data from BSRIA, and an electricity cost of 17p per kW/h, the estimated heating cost is £391 per annum for the MHI air conditioning system and £1,800 for electric panel heating (COP 1). Although no comparison is possible, the estimated annual cost of cooling is just £31.



Matt Ford from MF Air Conditioning said:
"We have worked with MHI for a number of years and find their products easy to install and reliable. The client wanted a high-end look, so we chose to install a 5kW unit from the Premium Range."

The system uses a single phase 240V supply (ideal for domestic premises) and offers a possible pipe run of 25 metres between outdoor and indoor units, alongside a possible 15m elevation. A low noise mode is available on the outdoor unit, and both indoor and outdoor units boast low noise levels of 22 and 51 dB(A) respectively.

Available in three different colours, these stylish units heat and cool all year round. Featuring a weekly timer and the ability to include Wi-Fi, they can be programmed to avoid wasted energy. The unit is also equipped with a motion detector for further energy saving. This starts the unit on motion detection and stops it after a defined period of time if no movement is detected.

The system was installed in less than a day and the client is now enjoying a comfortable working environment.

To ensure maximum indoor air quality, the premium range features an allergen clear filter which removes allergens and bacteria and captures dust. The filters are also effective against Covid-19.

Note: The heating degree days data shows the hours in a specific region where the temperature is above or below a base 15.5°C. For the Midlands, where this installation took place, this equates to an estimated 2,228 hours of heating and 257 hours of cooling.

For the purposes of this comparison, electricity cost is 17 p per kW/h.

For more details about our range, please contact MHI Direct or your local Beijer Ref branch today.